



An introduction to

# Disease modifying treatments

## A guide to drugs that can decrease the number and severity of relapses

Disease modifying drugs are available that may cut down how many relapses you experience as well as their impact on everyday life. The  symbol will point you to further resources.

### Treatment options

Treatments for people with MS can be divided into two broad types:

#### Symptomatic treatments

There is a wide range of treatments for the symptoms of MS. The treatment options include drug treatments, therapies (such as physiotherapy), management techniques (for example, pacing yourself to minimise fatigue) and rehabilitation. You can read more in this resource:

 [Treating symptoms](#)

#### Disease modifying drugs

Disease modifying drugs (DMDs) are also called disease modifying treatments or therapies (DMTs). They may reduce the number and impact of relapses and also the MS disease activity seen on MRI scans. This information is an introduction to these drugs.

### What is a relapse?

The symptoms of MS vary from day to day for most people. On top of this, some people will experience a relapse which is the sudden appearance of a new symptom or the reappearance of old symptoms that lasts more than 24 hours. In between relapses are times when symptoms have improved or may have gone away completely.

Sometimes MS disease activity can be seen on an MRI scan as a new area of damage but it does not give rise to symptoms or a relapse. Your neurologist may take into account any relapses that you have experienced and the results of your MRI scans when deciding how active your MS is at the moment.

### What are disease modifying drugs?

Disease modifying drugs (DMDs) are helpful for people with MS who have relapses or whose MS shows activity on MRI scans. Consequently, they are mostly prescribed for people with relapsing remitting MS but occasionally for people with secondary progressive MS if they are still experiencing significant relapses.



## If you experience relapses, you should have a conversation with your neurologist or MS nurse about DMDs

DMDs may reduce the number of relapses that you experience but also how severe each relapse is. There is also some evidence that they can slow down the progression of the disease which is usually measured as a build-up of disability over time. This slowing seems to occur through the drug's effect on relapses rather than any direct effect on progression so they are not prescribed for people with progressive MS who do not have relapses.

The effect that these drugs have over the longer term is not yet known and currently there is no evidence that DMDs delay the onset of secondary progressive MS.

- [\*Relapsing remitting MS: an introduction\*](#)
- [\*Primary progressive MS: an introduction\*](#)
- [\*Secondary progressive MS: an introduction\*](#)

### Can I have a disease modifying drug?

If you experience relapses, you should have a conversation with your neurologist or MS nurse about DMDs. There is increasing evidence that it is important to begin treating MS early so that you stay as healthy as possible in the longer term. This means starting DMDs soon after diagnosis.

The decision about when to start treatment is very personal. The exact timing will depend, in part, on how active your MS is at the moment. If you have had one or more relapses, or if any of them was severe, your MS team may recommend that you begin treatment right away.

If you are pregnant, or planning to become pregnant, then you may be advised to wait before beginning treatment.

If your health professionals do not raise the topic of DMDs, then it is a good idea to ask them.

- [\*What happens after MS diagnosis?\*](#)
- [\*Making the most of appointments\*](#)
- [\*Disease modifying drugs\*](#)

### Is there a choice of treatment?

In the UK, there are currently 11 DMDs that have been approved for use in the NHS and most people will have some choice. Your choice depends on the characteristics of your MS, especially how many relapses you've had, how severe they were and how active your MS looks on an MRI scan. It also depends on the prescribing criteria, licensing conditions and availability of each drug on the NHS.

Each of the 11 drugs has different characteristics such as how often you take them, how well they work, possible side effects, any particular risks associated with the drug, any tests or monitoring required and how they are given (a pill, an injection or an infusion through a drip).

Five of the DMDs are forms of beta interferon and are self-injected under the skin or into a muscle by the person with MS. They are Avonex, Betaferon, Extavia, Plegridy and Rebif.



## You will need to weigh up the likely benefits as well as the risk of any side effects

Copaxone (glatiramer acetate) is also self-injected under the skin but is a different kind of drug from beta interferon.

Tysabri (natalizumab) is taken as an infusion through a drip into the arm, once a month. Infusion usually takes two to three hours in a hospital clinic. In contrast, Lemtrada (alemtuzumab) is given as an infusion for five consecutive days and then, one year later, for three consecutive days.

Aubagio (teriflunomide), Gilenya (fingolimod) and Tecfidera (dimethyl fumarate) are all pills. Aubagio and Gilenya are taken once a day but Tecfidera is taken twice a day.

There is more detailed information in this resource:

[\*📄 Disease modifying drugs\*](#)

### How do I decide?

Your neurologist or MS nurse can tell you which drugs you are eligible for. They may suggest which one they think would be best for your MS. You can also read up about the drugs yourself and think ahead about what you might prefer.

The MS Trust has produced a web-based guide to decision making, called MS Decisions, to help you consider your DMD treatment options in consultation with your health professionals. MS Decisions has a wealth of information to help you think around the topic and make the right choice for you. It provides the key characteristics for each of the drugs and prompts you to think about what is most important to you and will fit in with your way of life.

You will need to weigh up the likely benefits as well as the risk of any side effects. For some drugs, you will need to commit to regular monitoring for certain side effects. This could mean having regular blood tests, perhaps monthly, so you will need to decide if you are able to attend these appointments.

Having to inject yourself can seem daunting at first but most people adjust to the idea and quickly become expert, just like a diabetic who has to inject insulin regularly. The self-injected drugs use a device which looks like a chunky pen and automatically performs the injection at the push of a button. This means that you don't see the needle at all. You will be taught how to inject yourself and given plenty of support by your MS nurse.

When deciding about treatment, consider asking your health professionals the following three key questions:

1. What are my options?
2. What are the pros and cons of each option?
3. How do I get support to help me make a decision that is right for me?

You may like to learn about the experiences of other people with MS who are taking DMDs through social media or by reading blogs and other personal accounts.

It is important you have as much information as you need to make your decision

Starting any DMD is a long term commitment, so it is important you have as much information as you need to make your decision. Bringing together your own preferences with the experience of your MS team can help you make a choice that it is the best blend between the effectiveness of the drug and how well it suits your circumstances.

- ① *Sources of information and support*
- ① *Disease modifying drugs*
- ① *MS Decisions: [www.mstrust.org.uk/msdecisions](http://www.mstrust.org.uk/msdecisions)*
- ① *Online groups and blogs: [www.mstrust.org.uk/a-z/support-groups](http://www.mstrust.org.uk/a-z/support-groups)*

## The names of drugs

Drugs often have more than one name which can be rather confusing. Each drug will have a generic name, which is the official medical name for the active ingredient in the medicine, but it will also have a brand name, which is the trade name given by the manufacturer. An example is the DMD called glatiramer acetate which has the brand name Copaxone. There may be more than one brand name if the same or very similar drugs are produced by more than one manufacturer. Brand names always begin with a capital letter but generic names do not.

## What about research?

Developing better disease modifying drugs is an active area of research. In the future, there may be DMDs that are appropriate for people with progressive MS as well as ones to reduce the number of relapses. You can keep up to date through our newsletter, Open Door, or through our website in the section about drugs in development.

- ① *Publications for people with MS from the MS Trust (includes Open Door)*
- ① *Research and MS*
- ① *Open Door newsletter: [www.mstrust.org.uk/opendoor](http://www.mstrust.org.uk/opendoor)*
- ① *Drugs in development: [www.mstrust.org.uk/did](http://www.mstrust.org.uk/did)*

Please contact the MS Trust Information Team if you would like any further information about the reference sources used in the production of this publication.



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Registered charity no. 1088353

### Making Sense of MS

This information is part of a set of resources for people who are newly diagnosed with MS. You might like to look at our introductory resource, Making Sense of MS, which answers the questions most commonly asked around the time of diagnosis.

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Disease modifying treatments: an introduction (Order code: 442)

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This edition published 2016

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